## **EAST Search History**

## **EAST Search History (Prior Art)**

| Ref# | Hits | Search Query   | DBs  | Default<br>Operator | Plurals | Time Stamp          |
|------|------|--|--|---------------------|---------|---------------------|
| S1   | 1    | "10544210".rlan. or<br>("10".src. and<br>"544210".ap.)   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT      | OR                  | OFF     | 2009/03/11<br>11:01 |
| S2   | 8    | "11092149"   | US-PGPUB;<br>USPAT; USOCR;<br>JPO; DERWENT | OR                  | OFF     | 2009/03/11<br>11:09 |
| S3   | 25   | ((YASUFUMI) near2<br>(TAKAHASHI)).INV.   | US-PGPUB;<br>USPAT                         | OR                  | OFF     | 2009/07/10<br>09:09 |
| S4   | 101  | ((HIROYUKI) near2<br>(FWIMOTO)).INV.   | US-PGPUB;<br>USPAT                         | OR                  | OFF     | 2009/07/10<br>09:09 |
| S5   | 58   | ((AKIRA) near2<br>(KINOSHITA)).INV.  | US-PGPUB;<br>USPAT                         | OR                  | OFF     | 2009/07/10<br>09:09 |
| S6   | 26   | ((TOYOKI) near2<br>(FUJIHARA)).INV.  | US-PGPUB;<br>USPAT                         | OR                  | OFF     | 2009/07/10<br>09:09 |
| S7   | 18   | ((SHINGO) near2<br>(TODE)).INV.  | US-PGPUB;<br>USPAT                         | OR                  | OFF     | 2009/07/10<br>09:09 |
| S8   | 23   | ((IKURO) near2<br>(NAKANE)).INV.   | US-PGPUB;<br>USPAT                         | OR                  | OFF     | 2009/07/10<br>09:10 |
| S9   | 161  | ((SHIN) near2<br>(FUJITANI)).INV.  | US-PGPUB;<br>USPAT                         | OR                  | OFF     | 2009/07/10<br>09:10 |
| S10  | 304  | S3 S4 S5 S6 S7 S8 S9<br>and "429"/\$.ccls.   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT      | OR                  | OFF     | 2009/07/10<br>09:10 |
| S11  | 34   | S10 and (((lithium<br>near2 cobalate) same<br>(Zr and Mg)) (Li and<br>Mg and Zr and Co))                   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT      | OR                  | OFF     | 2009/07/10<br>09:28 |
| S12  | 10   | S10 and (((lithium<br>near2 cobalate) same<br>(Zr and Mg)) (Li same<br>Mg same Zr same Co))                | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT      | OR                  | OFF     | 2009/07/10<br>09:28 |
| S14  | 1012 | "429"/\$.ccls. and (((((lithium near2 cobalate) (Li with Co)) same (Zr and Mg)) (Li and Mg and Zr and Co)) | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT      | OR                  | OFF     | 2009/07/10<br>09:34 |
| S15  | 147  | S14 and (Li with Mg<br>with Co with Zr)  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT      | OR                  | OFF     | 2009/07/10<br>09:34 |

| S16 | 53   | S15 and (sinter\$3)  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF | 2009/07/10<br>09:35 |
|-----|------|--|---------------------------------------|----|-----|---------------------|
| S17 | 52   | sanyo.as. and ((((lithium near2 cobalate) (Li with Co)) same (Zr and Mg)) (Li and Mg and Zr and Co))   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF | 2009/07/10<br>09:35 |
| S18 | 11   | "429"/\$.ccls. and ("Li.<br>sub.2CO.sub.3" same<br>"Co.sub.3O.sub.4"<br>same "ZrO.sub.2" same<br>MgO)  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF | 2009/07/10<br>09:44 |
| S19 | 2    | "6071645".pn.  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF | 2009/07/10<br>09:46 |
| S20 | 3653 | "429"/\$.ccls. and (electroly\$3 same solvent same ((PC EC (propylene adj carbonate) (ethylene adj carbonate)) same (DMC (dimethyl adj carbonate)))) | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON  | 2009/07/10<br>11:30 |
| S21 | 2436 | S20 and (volume same (solvent electroly\$3))   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON  | 2009/07/10<br>11:30 |
| S22 | 101  | S21 and (EC/DMC)   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON  | 2009/07/10<br>11:31 |
| S23 | 781  | "429"/\$.ccls. and<br>((battery batteries) and<br>(ratio same (charge<br>near3 capacity)))   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF | 2009/07/13<br>09:18 |
| S24 | 57   | S23 and ((end near3 charge) with voltage)  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF | 2009/07/13<br>09:19 |
| S25 | 251  | "429"/\$.ccls. and<br>((battery batteries) and<br>((ratio same (charge<br>near3 capacity) same<br>((negative positive)<br>near2 electrode))))        | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF | 2009/07/13<br>09:22 |
| S26 | 25   | S25 and ((end near3 charge) with voltage)  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF | 2009/07/13<br>09:22 |
| S27 | 25   | S25 and (((end-of-<br>charge) (end near3<br>charge)) with voltage)   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF | 2009/07/13<br>09:23 |

| S28 | 1622  | "429"/\$.ccls. and<br>((battery batteries) and<br>((anode cathode<br>(positive near2<br>electrode) (negative<br>near2 electrode)) same<br>(charge near2<br>capacity))) | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | MOR | OFF | 2009/07/13<br>09:28 |
|-----|-------|--|---------------------------------------|-----|-----|---------------------|
| S29 | 97    | S28 and ((end-of-<br>charge (end near3<br>charge)) with voltage)   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR  | OFF | 2009/07/13<br>09:28 |
| S30 | 72    | S29 not S27  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR  | OFF | 2009/07/13<br>09:40 |
| S31 | 34374 | "429"/\$.ccls. and<br>(battery batteries)  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR  | OFF | 2009/07/13<br>09:41 |
| S32 | 864   | \$31 and (volume same ((anode near2 material) (cathode near2 mear2 material) (active near2 material)) same ratio)  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR  | OFF | 2009/07/13<br>09:41 |
| S33 | 859   | S32 not S27  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR  | OFF | 2009/07/13<br>09:42 |
| S34 | 398   | S31 and (volume with ((anode near2 material) (cathode near2 material) (active near2 material)) same ratio)   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR  | OFF | 2009/07/13<br>09:44 |
| S35 | 15518 | S31 and (electrode with capacity wit ratio)  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR  | ON  | 2009/07/13<br>09:49 |
| S36 | 1153  | S31 and (electrode with capacity with ratio)   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR  | ON  | 2009/07/13<br>09:49 |
| S37 | 1067  | S36 and (nonaqueous<br>non-aqueous<br>rechargeable<br>secondary (lithium with<br>battery))   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR  | ON  | 2009/07/13<br>09:58 |
| S38 | 86    | S37 and ((charge adj<br>capacity) with ratio)  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR  | ON  | 2009/07/13<br>10:01 |
| S39 | 135   | S37 and ((charg\$3 adj<br>capacity) with ratio)  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR  | ON  | 2009/07/13<br>10:02 |

| S40 | 2     | "09293536"  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT    | OR | ON  | 2009/07/14<br>07:50 |
|-----|-------|---|--|----|-----|---------------------|
| S41 | 34388 | "429"/\$.ccls. and<br>(battery batteries)                   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT    | OR | OFF | 2009/07/14<br>07:56 |
| S42 | 2740  | S41 and ((active near2 material) with ratio)                | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT    | OR | ON  | 2009/07/14<br>07:56 |
| S43 | 150   | S41 and ((active near2 material) with (volume near2 ratio)) | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT    | OR | ON  | 2009/07/14<br>07:56 |
| S44 | 0     | 6-325767  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT    | OR | ON  | 2009/07/14<br>07:58 |
| S45 | 12    | "6325767"   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT    | OR | ON  | 2009/07/14<br>07:58 |
| S46 | 1     | JP-A-6-325767   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT    | OR | ON  | 2009/07/14<br>07:59 |
| S47 | 0     | 63-025767   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT    | OR | ON  | 2009/07/14<br>07:59 |
| S48 | 0     | 63-46523  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT    | OR | ON  | 2009/07/14<br>07:59 |
| S49 | 0     | 63-046523   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT    | OR | ON  | 2009/07/14<br>07:59 |
| S50 | 1     | "63046523"  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT    | OR | ON  | 2009/07/14<br>07:59 |
| S51 | 0     | "63025767"  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT    | OR | ON  | 2009/07/14<br>08:00 |
| S52 | 27    | "5487960"   | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT | OR | OFF | 2009/07/14<br>08:28 |
| S53 | 2     | "5487960".pn.   | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT | OR | OFF | 2009/07/14<br>08:28 |
| S54 | 2     | "6200703".pn.   | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT | OR | OFF | 2009/07/14<br>08:38 |
| S55 | 2     | "20010031391"   | US-PGPUB;<br>USPAT; EPO;<br>JPO; DERWENT | OR | OFF | 2009/07/14<br>08:42 |

| S56 | 554  | S41 and ((active near2 material) with (specific near4 area))  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON  | 2009/07/14<br>09:06 |
|-----|------|---|---------------------------------------|----|-----|---------------------|
| S57 | 482  | S56 and (area with ("m. sup.2"))  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON  | 2009/07/14<br>09:06 |
| S58 | 1112 | "429"/\$.ccls. and ((((lithium near2 cobalate) (Li with Co)) same (Zr and Mg)) (Li and Mg and Zr and Co)) | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF | 2010/02/23<br>09:18 |
| S59 | 166  | S58 and (Li with Mg with Co with Zr)  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF | 2010/02/23<br>09:18 |
| S60 | 807  | sanyo.as. and "429"/\$.<br>ccls.  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF | 2010/02/23<br>09:18 |
| S61 | 523  | S60 and (active adj<br>material)  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF | 2010/02/23<br>09:18 |
| S62 | 7    | S61 and (Li with Mg<br>with Co with Zr)   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF | 2010/02/23<br>09:18 |
| S63 | 39   | ((YASUFUMI) near2<br>(TAKAHASHI)).INV.  | US-PGPUB;<br>USPAT                    | OR | OFF | 2010/09/15<br>08:17 |
| S64 | 129  | ((HIROYUKI) near2<br>(FUJIMOTO)).INV.   | US-PGPUB;<br>USPAT                    | OR | OFF | 2010/09/15<br>08:17 |
| S65 | 64   | ((AKIRA) near2<br>(KINOSHITA)).INV.   | US-PGPUB;<br>USPAT                    | OR | OFF | 2010/09/15<br>08:17 |
| S66 | 28   | ((TOYOKI) near2<br>(FWIHARA)).INV.  | US-PGPUB;<br>USPAT                    | OR | OFF | 2010/09/15<br>08:17 |
| S67 | 23   | ((SHINGO) near2<br>(TODE)).INV.   | US-PGPUB;<br>USPAT                    | OR | OFF | 2010/09/15<br>08:17 |
| S68 | 27   | ((IKURO) near2<br>(NAKANE)).INV.  | US-PGPUB;<br>USPAT                    | OR | OFF | 2010/09/15<br>08:17 |
| S69 | 176  | ((SHIN) near2<br>(FWITANI)).INV.  | US-PGPUB;<br>USPAT                    | OR | OFF | 2010/09/15<br>08:17 |
| S70 | 349  | S63 S64 S65 S66 S67<br>S68 S69 and "429"/\$.<br>ccls.   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF | 2010/09/15<br>08:17 |
| S71 | 44   | S70 and ((((lithium near2 cobalate) (Li with Co)) same (Zr and Mg)) (Li and Mg and Zr and Co))            | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF | 2010/09/15<br>08:17 |

| S72 | 39964  | "429"/\$.ccls. and<br>(battery batteries<br>((rechargeable<br>secondary storage non<br>\$1aqueous) near3<br>cell)) | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON | 2010/09/15<br>08:19 |
|-----|--------|--|---------------------------------------|----|----|---------------------|
| S73 | 6917   | S72 and (positive near3 (active adj material))   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON | 2010/09/15<br>08:20 |
| S74 | 149    | S73 and (Li with (Zr<br>with Mg))  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON | 2010/09/15<br>08:20 |
| S75 | 35     | S74 and ((active near2<br>material) same (heat<br>near3 treat\$4))   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON | 2010/09/15<br>08:20 |
| S76 | 15     | S74 and (source near2 material)  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON | 2010/09/15<br>08:21 |
| S77 | 4      | S70 and (mix\$3 with (source adj material))  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON | 2010/09/15<br>08:21 |
| S78 | 17     | S72 and (("Li.sub.2CO.<br>sub.3" same "Co.<br>sub.3O.sub.4" same<br>"ZrO.sub.2" same<br>MgO) same mix\$4)          | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON | 2010/09/15<br>08:25 |
| S79 | 2      | "6685804".pn.  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON | 2010/09/15<br>08:30 |
| S80 | 5      | S72 and ("LiCo.<br>sub.0.993Zr.<br>sub.0.002Mg.<br>sub.0.005O.sub.2")  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON | 2010/09/15<br>08:32 |
| S81 | 458936 | nippon.as.   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON | 2010/09/15<br>08:36 |
| S82 | 196    | "429"/\$.ccls. and S81   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON | 2010/09/15<br>08:36 |
| S83 | 0      | S82 and (Li with Co<br>with Zr)  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON | 2010/09/15<br>08:36 |
| S84 | 3      | S82 and (Co with Zr)   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON | 2010/09/15<br>08:36 |
| S85 | 3      | S82 and (Co with Zr)   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON | 2010/09/15<br>08:37 |

| S86  | 218   | S72 and (((starting raw source) near2 material) same "Li.sub.2CO. sub.3")  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON  | 2010/09/15<br>08:41 |
|------|-------|--|---------------------------------------|----|-----|---------------------|
| S87  | 4     | S86 and ("ZrO.sub.2"<br>same MgO)  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON  | 2010/09/15<br>08:42 |
| S88  | 12    | S72 and (((starting raw source) near2 material) same ("ZrO.sub.2" same MgO))                                       | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON  | 2010/09/15<br>08:44 |
| S89  | 39    | ((YASUFUMI) near2<br>(TAKAHASHI)).INV.   | US-PGPUB;<br>USPAT                    | OR | OFF | 2010/09/16<br>08:56 |
| S90  | 129   | ((HIROYUKI) near2<br>(FWIMOTO)).INV.   | US-PGPUB;<br>USPAT                    | OR | OFF | 2010/09/16<br>08:56 |
| S91  | 64    | ((AKIRA) near2<br>(KINOSHITA)).INV.  | US-PGPUB;<br>USPAT                    | OR | OFF | 2010/09/16<br>08:56 |
| S92  | 28    | ((TOYOKI) near2<br>(FUJIHARA)).INV.  | US-PGPUB;<br>USPAT                    | OR | OFF | 2010/09/16<br>08:56 |
| S93  | 23    | ((SHINGO) near2<br>(TODE)).INV.  | US-PGPUB;<br>USPAT                    | OR | OFF | 2010/09/16<br>08:56 |
| S94  | 27    | ((IKURO) near2<br>(NAKANE)).INV.   | US-PGPUB;<br>USPAT                    | OR | OFF | 2010/09/16<br>08:56 |
| S95  | 176   | ((SHIN) near2<br>(FUJITANI)).INV.  | US-PGPUB;<br>USPAT                    | OR | OFF | 2010/09/16<br>08:56 |
| S96  | 349   | \$89 \$90 \$91 \$92 \$93<br>\$94 \$95 and "429"/\$.<br>ccls.   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF | 2010/09/16<br>08:56 |
| S97  | 40041 | "429"/\$.ccls. and<br>(battery batteries<br>((rechargeable<br>secondary storage non<br>\$1aqueous) near3<br>cell)) | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON  | 2010/09/22<br>09:58 |
| S98  | 221   | S97 and (((starting raw source) near2 material) same "Li.sub.2CO. sub.3")  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON  | 2010/09/22<br>09:58 |
| S99  | 41909 | "429"/\$.ccls. and<br>(battery batteries<br>((rechargeable<br>secondary storage non<br>\$1aqueous) near3<br>cell)) | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON  | 2011/03/09<br>08:02 |
| S100 | 245   | S99 and (((starting raw source) near2 material) same "Li.sub.2CO. sub.3")  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON  | 2011/03/09<br>08:02 |

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|------|------|--|---------------------------------------|----|--|---------------------|
| S101 | 6    | S100 and ("ZrO.sub.2"<br>same MgO)   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON   | 2011/03/09<br>08:02 |
| S102 | 1377 | "429"/\$.ccls. and (((((lithium near2 cobalate) (Li with Co)) same (Zr and Mg)) (Li and Mg and Zr and Co)) | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF  | 2011/03/09<br>08:02 |
| S103 | 200  | S102 and (Li with Mg<br>with Co with Zr)   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | OFF  | 2011/03/09<br>08:02 |
| S104 | 6    | S100 and ("ZrO.sub.2"<br>same MgO)   | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON   | 2011/03/09<br>08:09 |
| S105 | 22   |  | US-PGPUB;<br>USPAT; USOCR;<br>DERWENT | OR | ON   | 2011/03/09<br>08:11 |

## **EAST Search History (Interference)**

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## 3/9/2011 10:19:01 AM

 $\textbf{C:} \ \textbf{Documents} \ \textbf{and Settings} \ \textbf{aarciero} \ \textbf{My Documents} \ \textbf{EAST} \ \textbf{Workspaces} \ \textbf{10-544210-nonaqueous sec batt.wsp}$